

Dr. Duke's Phytochemical and Ethnobotanical Database

Chemicals Found in Zea mays

| Activity Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|----------------|---------------------------|-------------------|---------|----------|---------------------|--|
| 67 | 1,8-CINEOLE | Silk Stigma Style | -- | -- | | |
| 5 | 24-METHYLENE-CYCLOARTANOL | Shoot | -- | -- | | |
| 1 | 3-O-CAFFELOYLQUINIC-ACID | Plant | -- | -- | | |
| 3 | 4-HYDROXYBENZALDEHYDE | Cob | -- | -- | | |
| 4 | 4-VINYL-GUAIACOL | Seed | -- | -- | | |
| 1 | 5-O-CAFFELOYLQUINIC-ACID | Plant | -- | -- | | |
| 1 | ACONITIC-ACID | Root | -- | -- | | |
| 1 | ACONITIC-ACID | Shoot | 600 | 600 | | |
| 11 | ADENINE | Seed | -- | -- | | |
| 28 | ADENOSINE | Seed | -- | -- | | |
| 28 | ADENOSINE | Leaf | -- | -- | | |
| 3 | ALANINE | Seed | 2950 | 12272 | 0.44977179228929015 | USDA's Ag Handbook 8 and sequelae) |
| 12 | ALLANTOIN | Seed | -- | -- | | Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989. |
| 12 | ALLANTOIN | Embryo | -- | -- | | |
| 10 | ALPHA-AMYRIN | Plant | -- | -- | | |
| 7 | ALPHA-CAROTENE | Seed | 0.5 | 2.5 | | |

| Activity Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|----------------|----------------------|-------------------|---------|----------|----------------------|------------------------------------|
| 15 | ALPHA-LINOLENIC-ACID | Seed | 160 | 666 | -0.3177446681679559 | USDA's Ag Handbook 8 and sequelae) |
| 28 | ALPHA-PINENE | Husk Essent. Oil | -- | -- | | |
| 23 | ALPHA-TERPINEOL | Silk Stigma Style | -- | -- | | |
| 32 | ALPHA-TOCOPHEROL | Oil | 90 | 257 | -0.32062252332922786 | |
| 32 | ALPHA-TOCOPHEROL | Fruit | -- | -- | | |
| 32 | ALPHA-TOCOPHEROL | Seed | -- | -- | | |
| 32 | ALPHA-TOCOPHEROL | Seed Oil | -- | -- | | |
| 5 | ALUMINUM | Seed | 1 | 275 | 0.09410564288080694 | |
| 5 | ALUMINUM | Silk Stigma Style | 213 | 213 | | |
| 5 | ALUMINUM | Leaf | -- | -- | | |
| 1 | ANTHERAXANTHIN | Leaf | -- | -- | | |
| 6 | ANTHRANILIC-ACID | Leaf | -- | -- | | |
| 14 | ARGININE | Seed | 1310 | 5450 | -0.8125917351666905 | USDA's Ag Handbook 8 and sequelae) |
| 2 | ARSENIC | Seed | 0.001 | 0.211 | 1.5951685300488623 | |
| 112 | ASCORBIC-ACID | Seed | -- | 85 | -0.28742699640223446 | |
| 112 | ASCORBIC-ACID | Silk Stigma Style | 11 | 11 | | |
| 3 | ASPARTIC-ACID | Seed | 2440 | 10150 | -1.1042764584247933 | USDA's Ag Handbook 8 and sequelae) |
| 7 | ASTRAGALIN | Pollen Or Spore | -- | -- | | |
| 24 | BENZALDEHYDE | Silk Essent. Oil | 1000 | 1000 | | |

| Activity Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|----------------|--------------------|-------------------|---------|----------|----------------------|--|
| 24 | BENZALDEHYDE | Shoot | -- | -- | | |
| 24 | BENZALDEHYDE | Husk Essent. Oil | -- | -- | | |
| 1 | BENZYL-FORMATE | Leaf | -- | -- | | Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705. |
| 9 | BETA-AMYRIN | Shoot | -- | -- | | |
| 53 | BETA-CAROTENE | Seed | 0.5 | 2.5 | -0.27303542142102893 | |
| 53 | BETA-CAROTENE | Silk Stigma Style | -- | -- | | |
| 2 | BETA-CRYPTOXANTHIN | Seed | -- | -- | | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| 13 | BETA-IONONE | Silk Essent. Oil | 1000 | 1000 | | |
| 13 | BETA-IONONE | Leaf | -- | -- | | Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705. |
| 13 | BETA-IONONE | Plant | -- | -- | | |
| 13 | BETA-IONONE | Husk Essent. Oil | 12000 | 12000 | | |
| 13 | BETA-IONONE | Silk Stigma Style | -- | -- | | |
| 13 | BETA-PINENE | Silk Essent. Oil | 3000 | 3000 | | |
| 47 | BETA-SITOSTEROL | Silk Stigma Style | 1300 | 1300 | | |
| 47 | BETA-SITOSTEROL | Seed | -- | 1200 | -0.17049741772155916 | |

| Activity Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|----------------|-----------------|-------------------|---------|----------|----------------------|--|
| 47 | BETA-SITOSTEROL | Shoot | -- | -- | | |
| 47 | BETA-SITOSTEROL | Seed Oil | -- | -- | | |
| 14 | BETAINE | Root | 59 | 59 | -0.3636422915694051 | |
| 14 | BETAINE | Shoot | 234 | 234 | -0.18096389196058713 | |
| 14 | BETAINE | Silk Stigma Style | -- | -- | | Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705. |
| 4 | BIOTIN | Cob | 0.02 | 0.06 | | |
| 4 | BORON | Seed | -- | 15 | -0.4322002310973592 | |
| 2 | CADAVERINE | Plant | -- | -- | | |
| 3 | CADMIUM | Seed | -- | 1 | 0.16237947527784696 | |
| 102 | CAFFEIC-ACID | Shoot | 0.7 | 0.7 | -0.7034493867354843 | |
| 102 | CAFFEIC-ACID | Sprout Seedling | -- | -- | | |
| 28 | CALCIUM | Seed | 10 | 181 | -0.7282806437807207 | |
| 28 | CALCIUM | Silk Stigma Style | 2520 | 2520 | | |
| 1 | CALMODULIN | Pollen Or Spore | 45 | 45 | | |
| 1 | CALMODULIN | Seed | -- | -- | | |
| 2 | CAMPESTEROL | Seed | -- | 320 | 0.03885369220474866 | Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.) |
| 2 | CAMPESTEROL | Shoot | -- | -- | | |

| Activity Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|----------------|------------------|-------------------|---------|----------|---------------------|--|
| 2 | CAMPESTEROL | Seed Oil | -- | -- | | |
| 37 | CARVACROL | Seed | -- | -- | | |
| 37 | CARVACROL | Silk Stigma Style | 144 | 216 | | Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705. |
| 37 | CARVACROL | Seed Essent. Oil | -- | -- | | |
| 31 | CARYOPHYLLENE | Leaf | -- | -- | | |
| 31 | CARYOPHYLLENE | Husk Essent. Oil | -- | -- | | |
| 1 | CELLULOSE | Plant | -- | -- | | |
| 2 | CHELIDONIC-ACID | Shoot | -- | -- | | |
| 2 | CHELIDONIC-ACID | Root | -- | -- | | |
| 7 | CHLORINE | Fruit | 330 | 330 | -0.4646995262356249 | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes. |
| 77 | CHLOROGENIC-ACID | Leaf | -- | -- | | |
| 77 | CHLOROGENIC-ACID | Silk Stigma Style | -- | -- | | |
| 1 | CHOLESTEROL | Seed | -- | -- | | |
| 1 | CHOLESTEROL | Root | -- | -- | | |
| 1 | CHOLESTEROL | Shoot | -- | -- | | |
| 20 | CHOLINE | Root | 36 | 36 | -0.4093082994350739 | |
| 20 | CHOLINE | Seed | 0.43 | 430 | -1.1693297391425415 | |

| Activity Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|----------------|---------------------------|-------------------|---------|----------|----------------------|--|
| 20 | CHOLINE | Shoot | 85 | 85 | -0.6541437736274379 | |
| 24 | CHROMIUM | Seed | -- | 1.65 | -0.442125919797465 | |
| 24 | CHROMIUM | Silk Stigma Style | 13 | 13 | | |
| 1 | CINNAMIC-ACID-ETHYL-ESTER | Silk Stigma Style | -- | -- | | |
| 15 | CITRONELLOL | Leaf | -- | -- | | Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705. |
| 2 | COBALT | Fruit | 0.01 | 0.8 | -0.43826781025666195 | |
| 2 | COBALT | Silk Stigma Style | 64 | 64 | | |
| 4 | COIXOL | Plant | -- | -- | | |
| 12 | COPPER | Fruit | -- | 20 | 0.5588968590110831 | |
| 57 | COUMARIN | Leaf | -- | -- | | Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705. |
| 10 | CROCETIN | Leaf | -- | -- | | |
| 2 | CRYPTOXANTHIN | Plant | -- | -- | | |
| 7 | CYANIDIN | Silk Stigma Style | -- | -- | | |
| 7 | CYANIDIN | Leaf | -- | -- | | |
| 5 | CYANIN | Cob | -- | -- | | |
| 7 | CYCLOARTENOL | Shoot | -- | -- | | |
| 7 | CYCLOARTENOL | Root | -- | -- | | |

| Activity Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|----------------|---------------------|-------------------|---------|----------|----------------------|--|
| 3 | CYCLOEUCALENOL | Shoot | -- | -- | | |
| 1 | CYCLOSADOL | Seed | -- | -- | | |
| 1 | CYCLOSADOL | Seed Oil | -- | -- | | |
| 2 | CYSTINE | Seed | 260 | 1082 | -1.438643753064175 | USDA's Ag Handbook 8 and sequelae) |
| 5 | DAUCOSTEROL | Silk Stigma Style | 440 | 440 | | |
| 1 | DECAN-1-AL | Silk Essent. Oil | 10000 | 90000 | | |
| 1 | DECAN-1-AL | Husk Essent. Oil | 24000 | 24000 | | |
| 9 | DELTA-CADINENE | Leaf | -- | -- | | |
| 2 | DIETHYL-AMINE | Seed | -- | -- | | |
| 2 | DIMETHYL-AMINE | Seed | 1.1 | 3.5 | -0.32293776451998035 | |
| 5 | ERGOSTEROL | Root | -- | -- | | |
| 5 | ERGOSTEROL | Silk Stigma Style | -- | -- | | Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705. |
| 8 | ESTRONE | Seed Oil | -- | 0.04 | | |
| 24 | ETHANOL | Silk Stigma Style | -- | -- | | |
| 6 | ETHYL-ACETATE | Silk Stigma Style | -- | -- | | |
| 6 | ETHYL-ACETATE | Shoot | -- | -- | | |
| 1 | ETHYL-PHENYLACETATE | Silk Essent. Oil | 250000 | 740000 | | |
| 76 | EUGENOL | Seed | -- | -- | | |

| Activity Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|----------------|----------------|-------------------|---------|----------|-----------------------|--|
| 61 | FERULIC-ACID | Leaf | -- | -- | | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes. |
| 61 | FERULIC-ACID | Seed | 6 | 27 | -0.39634822822137994 | |
| 61 | FERULIC-ACID | Sprout Seedling | -- | -- | | |
| 15 | FIBER | Silk Stigma Style | 81000 | 81000 | 1 | |
| 15 | FOLACIN | Fruit | 1 | 2 | -0.019192793995839758 | |
| 15 | FOLACIN | Seed | 0.142 | 0.4 | -0.9100137393533284 | |
| 23 | FOLIC-ACID | Seed | 0.142 | 0.4 | -0.3564545774203745 | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes. |
| 2 | FRIEDELIN | Shoot | -- | -- | | |
| 8 | FRUCTOSE | Fruit | 1000 | 4000 | -0.878981825433364 | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes. |
| 6 | FURFURAL | Plant | -- | -- | | |
| 6 | FURFURAL | Shoot | -- | -- | | |
| 1 | GALACTOSE | Plant | -- | -- | | |
| 62 | GALLIC-ACID | Tissue Culture | -- | -- | | |
| 2 | GAMMA-CAROTENE | Seed | -- | -- | | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |

| Activity Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|----------------|-------------------|-------------------|---------|----------|---------------------|--|
| 2 | GAMMA-NONALACTONE | Silk Stigma Style | -- | -- | | |
| 14 | GAMMA-TOCOPHEROL | Oil | 752 | 752 | 1.413007494257776 | |
| 13 | GERANIAL | Hull Husk | -- | -- | | |
| 13 | GERANIAL | Husk Essent. Oil | -- | -- | | |
| 35 | GERANIOL | Silk Stigma Style | -- | -- | | |
| 2 | GERANYL-ACETONE | Seed | -- | -- | | |
| 2 | GERANYL-ACETONE | Husk Essent. Oil | -- | -- | | |
| 2 | GERANYL-ACETONE | Seed Essent. Oil | -- | -- | | |
| 7 | GLUCOSE | Fruit | 2000 | 5000 | -0.8420433042200329 | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes. |
| 7 | GLUCOSE | Sprout Seedling | -- | -- | | |
| 8 | GLUTAMIC-ACID | Seed | 6360 | 26457 | -0.6436731379916952 | USDA's Ag Handbook 8 and sequelae) |
| 7 | GLUTATHIONE | Seed | 54 | 169 | | Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705. |
| 7 | GLUTATHIONE | Root | -- | -- | | |
| 7 | GLUTATHIONE | Fruit | -- | -- | | |
| 2 | GLUTEN | Seed | -- | -- | | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |

| Activity Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|----------------|-----------------------|-------------------|---------|----------|---------------------|--|
| 8 | GLYCEROL | Plant | -- | -- | | |
| 12 | GLYCINE | Seed | 1270 | 5283 | -0.8196658866632359 | USDA's Ag Handbook 8 and sequelae) |
| 4 | GLYCOLIC-ACID | Silk Stigma Style | -- | -- | | |
| 18 | GUAIACOL | Seed | -- | -- | | |
| 6 | GUANIDINE | Plant | -- | -- | | |
| 7 | HISTIDINE | Seed | 890 | 3702 | -0.6439051932934873 | USDA's Ag Handbook 8 and sequelae) |
| 7 | HISTIDINE | Embryo | -- | -- | | |
| 8 | HORDENINE | Silk Stigma Style | -- | -- | | Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989. |
| 15 | INDOLE | Leaf | -- | -- | | Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705. |
| 15 | INDOLE | Shoot | -- | -- | | |
| 7 | INDOLE-3-ACETIC-ACID | Seed | -- | -- | | |
| 7 | INDOLE-3-ACETIC-ACID | Cotyledon | -- | -- | | |
| 7 | INDOLE-3-ACETIC-ACID | Root | -- | -- | | |
| 7 | INDOLE-3-ACETIC-ACID | Juice | -- | -- | | |
| 3 | INDOLE-3-BUTYRIC-ACID | Seed | -- | -- | | |
| 3 | INDOLE-3-BUTYRIC-ACID | Leaf | -- | -- | | |

| Activity Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|----------------|-------------------|-------------------|---------|----------|----------------------|--|
| 8 | INOSITOL | Plant | -- | -- | | |
| 12 | IODINE | Seed | 0.012 | 0.012 | -0.2773081368232745 | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes. |
| 6 | IRON | Seed | 5 | 41 | -0.5101323955139533 | |
| 6 | IRON | Silk Stigma Style | 504 | 504 | | |
| 3 | ISOLEUCINE | Seed | 1290 | 5366 | -0.654028618470496 | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes. |
| 22 | ISOQUERCITRIN | Plant | -- | -- | | Stitt, Paul. Why George should eat broccoli. |
| 22 | ISOQUERCITRIN | Pollen Or Spore | -- | -- | | |
| 1 | ISOVALERALDEHYDE | Shoot | -- | -- | | |
| 8 | LACTIC-ACID | Plant | -- | -- | | |
| 1 | LANOSTEROL | Plant | -- | -- | | |
| 2 | LEUCINE | Seed | 3480 | 14477 | -0.24929490146930922 | USDA's Ag Handbook 8 and sequelae) |
| 1 | LEUCOCYANIDIN | Plant | -- | -- | | |
| 1 | LEUCOPELARGONIDIN | Plant | -- | -- | | |
| 13 | LIGNIN | Stem | 213000 | 245000 | 0.9696172791853698 | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes. |
| 13 | LIGNIN | Cob | -- | -- | | |

| Activity Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|----------------|-----------------|-------------------|---------|----------|---------------------|--|
| 1 | LIGNOCERIC-ACID | Fruit | -- | -- | | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| 60 | LIMONENE | Silk Essent. Oil | 7000 | 7000 | | |
| 60 | LIMONENE | Leaf | -- | -- | | |
| 60 | LIMONENE | Husk Essent. Oil | -- | -- | | |
| 60 | LIMONENE | Silk Stigma Style | -- | -- | | |
| 60 | LIMONENE | Seed Essent. Oil | -- | -- | | |
| 53 | LINALOOL | Plant | -- | -- | | Stitt, Paul. Why George should eat broccoli. |
| 53 | LINALOOL | Leaf | -- | -- | | |
| 27 | LINOLEIC-ACID | Seed | 5420 | 22547 | -0.724648681207493 | USDA's Ag Handbook 8 and sequelae) |
| 11 | LITHIUM | Seed | 0.048 | 0.22 | -0.9999999999999998 | |
| 15 | LUTEIN | Leaf | -- | -- | | |
| 1 | LUTEOLINIDIN | Silk Stigma Style | -- | -- | | |
| 4 | LYSINE | Seed | 1370 | 5699 | -0.8668614509130552 | USDA's Ag Handbook 8 and sequelae) |
| 65 | MAGNESIUM | Seed | 100 | 1600 | -0.531836823348677 | |
| 65 | MAGNESIUM | Silk Stigma Style | 1790 | 1790 | | |
| 15 | MALIC-ACID | Plant | -- | -- | | |
| 15 | MALIC-ACID | Silk Stigma Style | -- | -- | | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp. |

| Activity Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|----------------|----------------------|-------------------|---------|----------|----------------------|--|
| 1 | MALONIC-ACID | Plant | -- | -- | | |
| 14 | MANGANESE | Seed | 0.84 | 63 | 0.11807339481595111 | |
| 14 | MANGANESE | Silk Stigma Style | 34 | 34 | -1 | |
| 3 | MANNOSE | Plant | 1 | 7 | | |
| 3 | MAYSIN | Silk Stigma Style | -- | -- | | |
| 3 | MAYSIN | Leaf | -- | -- | | |
| 23 | MELATONIN | Seed | 0.001 | 0.001 | | Hattori, A., et. al. 1995. Identification of Melatonin in Plants and its Effects on Plasma Melatonin Levels and Binding to Melatonin Receptors in Vertebrates. Biochem. Mol. Biol. Int., 35(3): 627-634. |
| 63 | MENTHOL | Leaf | -- | -- | | Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705. |
| 63 | MENTHOL | Silk Stigma Style | -- | -- | | Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705. |
| 1 | MERCURY | Seed | -- | 0.072 | -0.30034903182835404 | |
| 15 | METHIONINE | Seed | 670 | 2787 | -0.39450659411183164 | USDA's Ag Handbook 8 and sequelae) |
| 15 | METHIONINE | Pollen Or Spore | -- | -- | | |
| 1 | METHYL-AMINE | Seed | 26.8 | 27 | -0.00897230932189183 | |
| 2 | METHYL-PHENYLACETATE | Silk Essent. Oil | 30000 | 40000 | | |
| 2 | MOLYBDENUM | Seed | 0.084 | 6.3 | 0.4479349477443534 | |

| Activity Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|----------------|----------------|-------------------|---------|----------|--------------------|--|
| 22 | MYRCENE | Seed | -- | -- | | |
| 22 | MYRCENE | Leaf | -- | -- | | |
| 22 | MYRCENE | Husk Essent. Oil | -- | -- | | |
| 22 | MYRCENE | Seed Essent. Oil | -- | -- | | |
| 6 | MYRISTIC-ACID | Seed | -- | -- | | |
| 1 | NAPHTHALENE | Silk Essent. Oil | 3000 | 3000 | | |
| 1 | NAPHTHALENE | Husk Essent. Oil | -- | -- | | |
| 1 | NAPHTHALENE | Silk Stigma Style | -- | -- | | |
| 1 | NAPHTHALENE | Seed Essent. Oil | -- | -- | | |
| 2 | NEOXANTHIN | Leaf | -- | -- | | |
| 11 | NEROLIDOL | Leaf | -- | -- | | Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705. |
| 39 | NIACIN | Cob | 4 | 16 | | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes. |
| 39 | NIACIN | Seed | 16 | 71 | 0.8415661421509846 | |
| 39 | NIACIN | Silk Stigma Style | -- | 25 | | |
| 3 | NICKEL | Seed | 0.12 | 6.3 | 0.2960271506106448 | |
| 1 | NICOTIANAMINE | Leaf | -- | -- | | |
| 64 | OLEANOLIC-ACID | Silk Stigma Style | -- | -- | | |

| Activity Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|----------------|-----------------------|-------------------|---------|----------|---------------------|--|
| 18 | OLEIC-ACID | Seed | 3470 | 14435 | -0.8604360359565065 | USDA's Ag Handbook 8 and sequelae) |
| 4 | ORIENTIN | Silk Stigma Style | -- | -- | | |
| 9 | OXALIC-ACID | Fruit | 99 | 99 | -0.3008899412935749 | Watt, J.M. and Breyer-Brandwijk, M.G. 1962. The Medicinal and Poisonous Plants of Southern and Eastern Africa. E. & S. Livingstone, Ltd. Edinburg & London. 1457 pp. |
| 25 | P-COUMARIC-ACID | Seed | 4 | 46 | -0.4061463765475915 | |
| 25 | P-COUMARIC-ACID | Shoot | 1 | 1 | -0.7071067811865475 | Jim Duke's personal files. |
| 25 | P-COUMARIC-ACID | Sprout Seedling | -- | -- | | |
| 4 | P-HYDROXYBENZALDEHYDE | Cob | -- | -- | | |
| 13 | PALMITIC-ACID | Seed | 1710 | 7114 | -0.5528161466254179 | USDA's Ag Handbook 8 and sequelae) |
| 13 | PALMITIC-ACID | Silk Stigma Style | -- | -- | | |
| 2 | PALMITOLEIC-ACID | Fruit | -- | -- | | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| 11 | PANTOTHENIC-ACID | Cob | 3 | 7 | | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes. |
| 11 | PANTOTHENIC-ACID | Seed | 4 | 34 | 1.8074305020007495 | USDA's Ag Handbook 8 and sequelae) |
| 24 | PECTIN | Leaf | 10000 | 17000 | -0.9298021026280799 | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes. |
| 7 | PELARGONIDIN | Silk Stigma Style | -- | -- | | |

| Activity Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|----------------|----------------------|-------------------|---------|----------|----------------------|--|
| 6 | PHENETHYL-ALCOHOL | Silk Stigma Style | -- | -- | | |
| 2 | PHENYL-ACETALDEHYDE | Silk Essent. Oil | 1000 | 1000 | | |
| 2 | PHENYL-ACETALDEHYDE | Plant | -- | -- | | |
| 2 | PHENYL-ACETALDEHYDE | Husk Essent. Oil | 13000 | 13000 | | |
| 2 | PHENYL-ACETALDEHYDE | Seed Essent. Oil | -- | -- | | |
| 2 | PHENYLACETIC-ACID | Pollen Or Spore | -- | -- | | |
| 7 | PHENYLALANINE | Seed | 1500 | 6240 | -0.6329654729366279 | USDA's Ag Handbook 8 and sequelae) |
| 2 | PHOSPHATIDYL-CHOLINE | Plant | -- | -- | | |
| 4 | PHOSPHORUS | Seed | 600 | 4066 | -0.34019475720359266 | |
| 4 | PHOSPHORUS | Silk Stigma Style | 287 | 287 | | |
| 5 | PHYLLOQUINONE | Oil | -- | 0.03 | -1.0603756768844963 | |
| 5 | PHYLLOQUINONE | Fruit | -- | 0.003 | -0.2325377501021479 | |
| 9 | PHYTIC-ACID | Seed | 7200 | 12900 | -0.3647475557448543 | |
| 9 | PHYTIC-ACID | Pollen Or Spore | 2600 | 2600 | | |
| 2 | PHYTOHAEMAGGLUTININ | Silk Stigma Style | -- | -- | | |
| 2 | PHYTOSTEROLS | Seed | 600 | 2800 | 0.11866310014704903 | Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.) |
| 14 | POTASSIUM | Seed | 2400 | 11450 | -0.09850155432250932 | |
| 14 | POTASSIUM | Silk Stigma Style | 12200 | 12200 | | |

| Activity Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|----------------|--------------------------------|-------------------|---------|----------|----------------------|--|
| 43 | PROTocatechuic-acid | Tissue Culture | -- | -- | | |
| 43 | pyridoxine | Cob | 1 | 3 | | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes. |
| 1 | pyrrolidine | Seed | -- | -- | | |
| 1 | pyruvic-acid | Sprout Seedling | -- | -- | | |
| 176 | quercetin | Plant | -- | -- | | |
| 176 | quercetin | Pollen Or Spore | -- | -- | | |
| 2 | quercetin-3-O-beta-D-glucoside | Pollen Or Spore | -- | -- | | |
| 1 | quinic-acid | Plant | -- | -- | | |
| 1 | raffinose | Fruit | 1000 | 3000 | -1 | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes. |
| 15 | riboflavin | Cob | 1 | 3 | | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes. |
| 15 | riboflavin | Fruit | 1 | 4 | -0.21615825716438572 | |
| 15 | riboflavin | Silk Stigma Style | 1.5 | 1.5 | -1 | |
| 2 | ribonuclease | Tissue Culture | -- | -- | | |
| 7 | ricinoleic-acid | Plant | -- | -- | | |
| 5 | sabinol | Leaf | -- | -- | | Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705. |

| Activity Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|----------------|--------------|-------------------|---------|----------|----------------------|--|
| 7 | SALICYLATES | Fruit | 1 | 5 | -0.3224047195908981 | |
| 60 | SELENIUM | Seed | -- | 0.5 | -0.2588230372812833 | |
| 60 | SELENIUM | Silk Stigma Style | -- | 5.7 | | |
| 1 | SERINE | Seed | 1530 | 6365 | -0.8067159497282409 | USDA's Ag Handbook 8 and sequelae) |
| 4 | SILICON | Silk Stigma Style | 237 | 237 | | |
| 3 | SILVER | Seed | 0.012 | 0.055 | -0.18268699040920042 | |
| 1 | SODIUM | Seed | -- | 757 | 0.48595911191753866 | |
| 1 | SODIUM | Silk Stigma Style | 130 | 130 | | |
| 1 | SPERMIDINE | Seed | -- | -- | | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes. |
| 1 | SPERMINE | Seed | -- | -- | | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes. |
| 10 | SQUALENE | Seed | -- | -- | | |
| 10 | SQUALENE | Seed Oil | -- | -- | | |
| 10 | SQUALENE | Pollen Or Spore | -- | -- | | |
| 5 | STARCH | Seed | -- | -- | | |
| 8 | STEARIC-ACID | Seed | 110 | 457 | -0.5554746921056529 | USDA's Ag Handbook 8 and sequelae) |
| 8 | STEARIC-ACID | Silk Stigma Style | -- | -- | | |

| Activity Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|----------------|----------------|-------------------|---------|----------|----------------------|--|
| 12 | STIGMASTEROL | Seed | -- | 210 | -0.2634086805935878 | Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.) |
| 12 | STIGMASTEROL | Root | -- | -- | | |
| 12 | STIGMASTEROL | Shoot | -- | -- | | |
| 12 | STIGMASTEROL | Seed Oil | -- | -- | | |
| 12 | STIGMASTEROL | Silk Stigma Style | -- | -- | | |
| 3 | SUBAPHYLLIN | Plant | -- | -- | | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| 7 | SUCCINIC-ACID | Plant | -- | -- | | |
| 14 | SUCROSE | Fruit | 9000 | 19000 | -0.6121007856075014 | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes. |
| 14 | SUCROSE | Leaf | -- | -- | | |
| 14 | SULFUR | Fruit | 6 | 1140 | -0.19109679700613894 | |
| 4 | SYRINGALDEHYDE | Seed | -- | -- | | |
| 4 | SYRINGALDEHYDE | Cob | -- | -- | | |
| 6 | SYRINGIC-ACID | Tissue Culture | -- | -- | | |
| 6 | TARTARIC-ACID | Silk Stigma Style | -- | -- | | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp. |

| Activity Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|----------------|----------------------|-------------------|---------|----------|----------------------|--|
| 31 | THIAMIN | Fruit | 2 | 8 | 0.3414272755878574 | |
| 31 | THIAMIN | Silk Stigma Style | 2.1 | 2.1 | -0.9999999999999999 | |
| 4 | THREONINE | Seed | 1290 | 5366 | -0.6199585002377315 | USDA's Ag Handbook 8 and sequelae) |
| 71 | THYMOL | Seed | -- | -- | | |
| 71 | THYMOL | Silk Stigma Style | -- | -- | | Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705. |
| 71 | THYMOL | Seed Essent. Oil | -- | -- | | |
| 4 | TIN | Seed | 1 | 1.8 | -0.39709066551927835 | |
| 4 | TIN | Silk Stigma Style | -- | -- | | |
| 2 | TRANS-BETA-FARNESENE | Leaf | -- | -- | | |
| 2 | TRANS-BETA-FARNESENE | Root | -- | -- | | |
| 2 | TRANS-FERULIC-ACID | Plant | -- | -- | | Stitt, Paul. Why George should eat broccoli. |
| 2 | TRANS-FERULIC-ACID | Seed | 1800 | 1800 | 1.3913139699802963 | |
| 15 | TRIGONELLINE | Seed | 4 | 4 | -0.46810441555051263 | |
| 4 | TRYPTAMINE | Plant | -- | -- | | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| 29 | TRYPTOPHAN | Seed | 230 | 957 | -0.8075994083741 | |
| 29 | TRYPTOPHAN | Cotyledon | -- | -- | | |

| Activity Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|----------------|---------------|-------------------|---------|----------|---------------------|--|
| 8 | TYROSINE | Seed | 1230 | 5117 | -0.6078994158411758 | USDA's Ag Handbook 8 and sequelae) |
| 3 | VALINE | Seed | 1850 | 7696 | -0.5315006159571728 | USDA's Ag Handbook 8 and sequelae) |
| 16 | VANADIUM | Seed | 0.05 | 1.35 | 0.6938324504308431 | |
| 24 | VANILLIC-ACID | Sprout Seedling | -- | -- | | |
| 24 | VANILLIC-ACID | Tissue Culture | -- | -- | | |
| 28 | VANILLIN | Seed | 4 | 31 | | Jim Duke's personal files. |
| 28 | VANILLIN | Shoot | -- | -- | | |
| 28 | VANILLIN | Cob | -- | -- | | |
| 2 | VIOLAXANTHIN | Leaf | -- | -- | | |
| 18 | VITEXIN | Silk Stigma Style | -- | -- | | |
| 43 | XANTHOTOXIN | Root | -- | -- | | |
| 3 | XYLOSE | Plant | -- | -- | | |
| 4 | ZEARALENONE | Plant | -- | -- | | |
| 2 | ZEATIN | Plant | 0.014 | 0.014 | | |
| 5 | ZEAXANTHIN | Plant | -- | -- | | |
| 5 | ZEAXANTHIN | Seed | -- | -- | | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| 77 | ZINC | Seed | 4 | 20 | -0.7135039207289134 | |